

REMARKS

Claims 1-19 are all of the claims presently pending in the application. Applicant has amended claims 1, 7, and 11 to define the claimed invention more particularly.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-3, 6, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto (U.S. Patent No. 6,064,079). Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto in view of Fukuda (JP 2003-115610). Claims 7-10 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto in view of Kaneyma (U.S. Publication No. 2002/0014632). Claims 11-15 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto in view of Fukuda. Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto in view of Nomura (U.S. Publication No. 2003/0147440). Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto in view of Ishikawa (U.S. Patent No. 4,987,096).

Applicant respectfully traverses these rejections in the following discussion.

I. THE CLAIMED INVENTION

The invention of claim 1, for example, is directed to a group III-nitride-based compound semiconductor device, that includes a first p-layer and a second p-layer, the first p-

layer and the second p-layer including an acceptor impurity, and an intermediate layer provided between the first p-layer and the second p-layer, wherein the intermediate layer contacts an entirety of the surface of the second p-layer and an entirety of the surface of the first p-layer, the first p-layer is formed on the light emitting layer, the intermediate layer is formed above the first p-layer, and the second p-layer is formed above the intermediate layer, and a band gap decreases from a position proximate to the light emitting layer to a position proximate the second p-layer (e.g., see Application at page 9, lines 1-5).

Accordingly, the intermediate layer exhibits low-conductivity due to doping of the donor impurity and, therefore, can offer an improved electrostatic withstand voltage while suppressing an increase in driving voltage. This effect results from the intermediate layer contacting the entire surface of the p-contact layer (or second p-layer) such that an applied voltage does not concentrate on a part of a p-electrode side but extends widely across the p-electrode side (see Application at page 6, line 14-page 7, and line 2).

II. THE PRIOR ART REFERENCES

A. The Yamamoto Reference

The Examiner alleges that the claimed invention of claims 1-3, 6, and 17 would have been obvious to one of ordinary skill in the art in view of Yamamoto. Applicant submits, however, that Yamamoto does not teach or suggest each and every feature of the claimed invention.

With respect to Yamamoto, the Examiner alleges, “[a]n intermediate layer (32) provided between the first p layer (16) and the second p layer (18) the intermediate layer (32) contacting a surface of the first p layer (16) and a surface of the second p layer (18) (*sic*). The

intermediate layer (32) contacts an entirety of the surface of the second p-layer (18).” (See Office Action dated May 16, 2008 at page 2, numbered paragraph 3).

Yamamoto, however, discloses that the intermediate layer (32) does not contact an entirety of the first p-layer (16) (see Yamamoto at Figure 1A).

The Examiner also alleges, “Yamamoto teaches a second embodiment comprising an intermediate layer (34) between a first layer (15) and a second p layer (18).” (See Office Action dated May 16, 2008 at page 3, numbered paragraph 6).

Yamamoto, however, discloses that the intermediate layer (34) does not contact both an entirety of the first p layer (15) and an entirety of the second p layer (18).

Furthermore, Yamamoto fails to teach or suggest that a bandgap decreases in the order of the first p layer (16, 15), the intermediate layer (32, 34), and the second p-layer (18).

Therefore, Applicant submits that Yamamoto does not teach or suggest each and every feature of the claimed invention. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection.

B. The Fukuda Reference

The Examiner alleges that one of ordinary skill in the art would have combined Fukuda with Yamamoto to teach the claimed invention of claims 4, 5, 11-15, and 19. Applicant submits, however, that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicant submits that claims 4, 5, 11-15, and 19 are allowable at least based on similar reasons as those set forth above with above, in section A, respect to claims 1-3, 6, and 17.

Furthermore, while Fukuda may teach a p contact layer, including a Mg-doped GaN layer and a Si-doped GaN layer alternately laminated between a superlattice p-type layer and a p-ohmic electrode, Fukuda does not teach or suggest the claimed bandgap relationship between the layers.

Therefore, Applicant submits that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection.

C. The Kaneyma Reference

The Examiner alleges that one of ordinary skill in the art would have combined Kaneyma with Yamamoto to teach the claimed invention of claims 7-10 and 18. Applicant submits, however, that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicant submits that claims 7-10 and 18 are allowable at least based on similar reasons as those set forth above with above, in section A, respect to claims 1-3, 6, and 17.

Therefore, Applicant submits that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection.

D. The Nomura Reference

The Examiner alleges that one of ordinary skill in the art would have combined Nomura with Yamamoto to teach the claimed invention of claim 15. Applicant submits,

however, that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicant submits that claim 15 is allowable at least based on similar reasons as those set forth above with above, in section A, respect to claims 1-3, 6, and 17.

Therefore, Applicant submits that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

Therefore, Applicant respectfully requests the Examiner to withdraw this rejection.

E. The Ishikawa Reference

The Examiner alleges that one of ordinary skill in the art would have combined Ishikawa with Yamamoto to teach the claimed invention of claim 16. Applicant submits, however, that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicant submits that claim 16 is allowable at least based on similar reasons as those set forth above with above, in section A, respect to claims 1-3, 6, and 17.

Therefore, Applicant submits that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

Therefore, Applicant respectfully requests the Examiner to withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submit that claims 1-19, all of the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. Applicant respectfully requests the Examiner to pass the above

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application to issue at the earliest possible time.

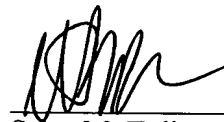
Should the Examiner find the application to be other than in condition for allowance, Applicant requests the Examiner to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The undersigned authorizes the Commissioner to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date:

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Respectfully Submitted,



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